

Notice of Allowability

Application No.

10/606,515

Applicant(s)

PETRUS, PAUL

Examiner

Olumide T. Ajibade-Akonai

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 01/04/2008.
2. ☒ The allowed claim(s) is/are 25-27, 29-37, 39-45 and 47.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date <u>02/11/2008</u> . |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with applicant's representative Jared Engstrom on February 11, 2008.

The application has been amended as follows:

Claim 44: On line 9, insert “;wherein a determination of the adaptive hysteresis factor comprises: computing the standard deviation of a residual signal associated with transmission from a first base station to obtain an estimate of the first base station signal strength fluctuation, computing the standard deviation of a residual signal associated with transmission from a second base station to obtain an estimate of the second base station signal strength fluctuation and multiplying in the sum of the estimated station signal strength fluctuation of the first and second base station with a scaling factor to obtain the adaptive hysteresis factor” between “unit” and “.”.

Allowable Subject Matter

2. Claims 25-27, 29-37, 39-45 and 47 are allowed.

Regarding **claims 25, 34 and 36**, **Bringby et al 6,285,883** discloses a method for facilitating handover between a base station pair in a communication system comprising: computing a cost function for the base station pair dependent on a relative

received signal strength and an adaptive hysteresis factor. **Itoh et al "performance of Handoff algorithm Based on Distance and RSSI Measurements"** discloses selecting a base station from the pair dependent on the cost function and a second factor, wherein the second factor is either base station load or physical distance between a user terminal and the base station. The instant invention discloses wherein the hysteresis factor is dependent on the standard deviation of a residual signal from each base station of the base station pair, wherein a determination of the adaptive hysteresis factor comprises: computing the standard deviation of a residual signal associated with transmission from a first base station to obtain an estimate of the first base station signal strength fluctuation computing the standard deviation of a residual signal associated with transmission from a second base station to obtain an estimate of the second base station signal strength fluctuation and multiplying the sum of the estimated station signal strength fluctuation of the first and second base station with a scaling factor to obtain the adaptive hysteresis factor. The above novel features in addition to the other recited limitations are neither taught, suggested nor made obvious by Bring by et al, Itoh et al or any other prior art of record. Claims 26, 27, 29-33, 35, 37 and 39-43 are allowable based on their being dependent on claims 25, 24 and 36.

Regarding **claim 44, Bringby et al 6,285,883** discloses a processing unit for facilitating handover between a base station pair in a communication, comprising: a base station selection pair in a communication system, comprising: a base station unit to select a base station dependent on the inputs from a received signal strength measurement (RSSI) unit. The instant invention discloses an adaptive hysteresis

calculation unit that provides an adaptive hysteresis factor dependent upon the standard deviation of a residual signal from each base station of the base station pair, wherein the adaptive hysteresis calculation unit determines the standard deviation of the residual signal using a memory factor for weighing; and a distance calculation unit; wherein a determination of the adaptive hysteresis factor comprises: computing the standard deviation of a residual signal associated with transmission from a first base station to obtain an estimate of the first base station signal strength fluctuation, computing the standard deviation of a residual signal associated with transmission from a second base station to obtain an estimate of the second base station signal strength fluctuation and multiplying in the sum of the estimated station signal strength fluctuation of the first and second base station with a scaling factor to obtain the adaptive hysteresis factor. The above novel features in addition to the other recited limitations are neither taught, suggested nor made obvious by Bring by et al or any other prior art of record. Claims 45 and 47 are allowable based on their being dependent on claim 44.

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Karlsson et al 6,018,663 discloses frequency packing for dynamic frequency allocation in a radiocommunication system.

Petrus 6,954,643 discloses criteria for base station selection, including handover, in a wireless communication system.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Olumide T. Ajibade-Akonai whose telephone number is 571-272-6496. The examiner can normally be reached on M-F, 8.30p-5p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rafael Perez-Gutierrez can be reached on 571-272-7915. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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2/14/09